TY212S WH

DuPont™ Tyvek®

Features and Benefits

Tyvek® garments are composed of flash spun high density polyethylene which creates a unique, nonwoven material available only from DuPont. Tyvek® provides an ideal balance of protection, durability and comfort of any limited use fabric technology. Tyvek® fabric offers an inherent barrier to small size particles. Protection is built into the fabric itself; there are no films or laminates to abrade or wear away. Tyvek® fabric's durability advantage over microporous film fabrics delivers consistently better barrier, even after wear and abrasion. Applications include: lead and asbestos abatement/remedation, general maintenance/operations, spray painting, general clean-up.

- Labcoat offers front snap closures for easy donning and doffing
- Provides enhanced frontal protection
- Mandarin collar designed to fit tightly around hooded PAPR
- Open wrists
- Two front pockets for holding writing instruments, small tools or parts

Product Description

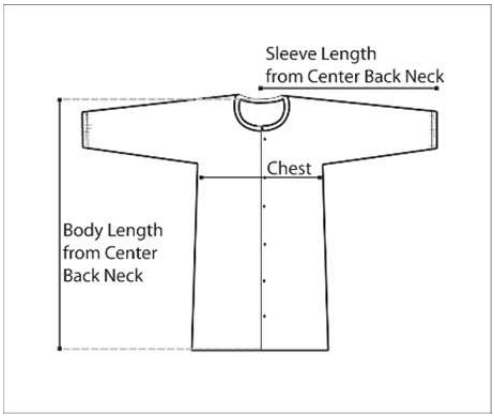
DuPont™ Tyvek® Lab Coat. Collar. Open Wrists. Extends Below Hip. Front Snap Closure. 2 Pockets. Serged Seams. White.

Full Part Number: TY212SWHxx0030yy (xx=size; yy=option code)

Fabric:	Tyvek®
Style:	Lab Coat
Seam:	Serged
Color:	White
Sizes:	SM, MD, LG, XL, 2X, 3X, 4X, 5X, 6X, 7X
Case Count:	30 per case
Option Codes:	00, NF, PI

	Description	Available Sizes	Part Number
00	Standard	SM, MD, LG, XL, 2X, 3X, 4X, 5X, 6X, 7X	TY212SWHxx003000
NF	NAFTA sourced	SM, MD, LG, XL, 2X, 3X, 4X, 5X, 6X, 7X	TY212SWHxx0030NF
PI	(s/p) Individually packaged. For select Tyvek® styles only (TY120S WH, TY122S WH, TY125S WH and TY127S WH) - individually packaged for PPE vending machines	SM, MD, LG, XL, 2X, 3X, 4X, 5X, 6X, 7X	TY212SWHxx0030PI

Finished Dimensions



Typical Finished Dimensions

Size	Sleeve Length	Chest Width	Body Length	Fits Chest	Fits Height
SM	30 ½	22 ¾	31	32 ¼ – 35 ¾	5'0" – 5'7"
MD	32	24 ¼	34	35 ¼ – 38 ¾	5'3" – 5'7"
LG	33	25 ¾	36 ½	38 ¼ – 41 ¾	5'5" – 5'9"
XL	34 ½	27 ½	39	41 ¾ – 45 ¼	5'8" – 6'2"
2X	35 ½	28 ¾	41 ¾	44 ¼ – 47 ¾	6'0" – 6'4"
3X	37	31	44 ½	48 ¾ – 52 ¼	6'2" – 6'4"
4X	37 ¾	32 ¾	47 ¼	52 ¼ – 55 ¾	6'4" – 6'7"
5X	38 ¾	34 ½	50	55 ¾ – 59 ¼	6'7" – 6'10"
6X	39 ½	36 ¼	52 ¾	59 ¼ – 62 ¾	6'9" – 7'1"
7X	40 ½	38	55 ½	62 ¾ – 66 ¼	7'0" – 7'4"

Specifications

1. The garment shall be constructed of DuPont™ Tyvek® — a patented flash-spun polyethylene fabric.
2. The garment shall be white in color.
3. The garment shall be a labcoat design.
4. The garment shall have serged seams.
5. The garment shall have a collar.
6. The garment shall have a front snaps (5) closure.
7. The garment shall have 2 pockets.
8. The garment shall have an open wrist.
9. The garment shall be sized to length.

Additional Equipment Needed

- Wear other appropriate PPE such as, but not limited to, respiratory, eye, head, hand, and foot protection based on the hazard assessment.
- This garment only provides partial body coverage. It may be worn in combination with other chemical resistant PPE as required based on the hazard assessment.

Physical Properties - Typical Values

Tyvek® - Fabric Data

Property	Test Method	Result
Thickness	ASTM D1777	5.7 mils
Basis Weight	ASTM D3776	1.2 oz/yd^2
Burst Strength – Mullen	ASTM D774	48 psi
Tear Resistance – Trap Tear (MD)	ASTM D5733	5 lbf
Tear Resistance – Trap Tear (CD)	ASTM D5733	7 lbf
Breaking Strength – Grab (MD)	ASTM D5034	18 lbf/in
Breaking Strength – Grab (CD)	ASTM D5034	24 lbf/in
Hydrostatic Head	AATCC 127	40 inches H_2O
Surface Resistivity (25°C / 55% RH)	ASTM D257	< 6.3 x 10^9 ohms/square
Wearing Apparel Flammability	16 CFR 1610	Class 1

*Typical Values, not specifications.

Chemical Resistance Data

Tyvek® - Fabric Data

Hazard / Chemical Name	CAS Number	Phase	Breakthrough Time (average, normalized to 0.1 ug/cm²/min) / Performance
Animal Waste (non-hazardous; solid)	Unknown	Solid	May be Suitable for Use
Asbestos (all forms)	1332-21-4	Solid	May be Suitable for Use
Beryllium	7440-41-7	Solid	May be Suitable for Use
Biological fluids w/ potentially infectious diseases	unknown	Liquid	May be Suitable for Use
Blood	unknown	Liquid	May be Suitable for Use
Blood w/ potentially infectious diseases	unknown	Liquid	May be Suitable for Use
Bodily fluids	unknown	Liquid	May be Suitable for Use
Bodily fluids w/ potentially infectious diseases	unknown	Liquid	May be Suitable for Use
Crude oil on wildlife	mixture	Liquid	May be Suitable for Use
Dirt (general)	unknown	Solid	May be Suitable for Use
Feces (solid)	unknown	Solid	May be Suitable for Use
Fertilizer (general; solid form)	unknown	Solid	May be Suitable for Use
Fiberglass	unknown	Solid	May be Suitable for Use
Fungicide (general; solid form)	unknown	Solid	May be Suitable for Use
Grease (general)	unknown	Liquid	May be Suitable for Use
Hazardous Particles (larger than 1 micron in size)	unknown	Solid	May be Suitable for Use
Herbicide (general; solid form)	unknown	Solid	May be Suitable for Use
Insecticide (general; solid form)	unknown	Solid	May be Suitable for Use
Lead	7439-92-1	Solid	May be Suitable for Use
Lime	mixture	Solid	May be Suitable for Use
Mold spores	unknown	Solid	May be Suitable for Use
Non-Hazardous Particles (larger than 1 micron in size)	unknown	Solid	May be Suitable for Use
Pesticide (general; solid form)	unknown	Solid	May be Suitable for Use
Radioactive particles	unknown	Solid	May be Suitable for Use
Sewage	unknown	Liquid	May be Suitable for Use
Tar balls	unknown	Solid	May be Suitable for Use

Special Warnings

1. *Serged and bound seams are degraded by some hazardous liquid chemicals, such as strong acids, and should not be worn when these chemicals are present.
2. *Liquid barrier performance varies based on the amount of liquid that may get on the garment, the length of time the liquid is on the garment, applied pressure and certain physical properties of the liquid. Tyvek®, Tyvek® Dual, ProShield®, ProShield® Basic, ProShield® NexGen®, Tyvek® FC, and ProShield® 3 garments are not appropriate if during use they are getting wet (liquid is dripping or running, or it is wet to the touch) or if spotting is observed on skin or garments worn under the protective garment. In applications where a higher liquid barrier is needed, consider Tychem® QC and Tychem® SL garments with taped seams.
3. *CAUTION: This information is based upon technical data that DuPont believes to be reliable. It is subject to revision as additional knowledge and experience are gained. DuPont makes no guarantee of results and assumes no obligation or liability in connection with this information. It is the user's responsibility to determine the nature and level of hazards and the proper personal protective equipment needed. The information set forth herein reflects laboratory performance of fabrics, not complete garments, under controlled conditions. It is intended for information use by persons having technical skill for evaluation under their specific end-use conditions, at their own discretion and risk. Anyone intending to use this information should first verify that the garment selected is suitable for the intended use. In many cases, seams and closures have shorter breakthrough times and higher penetration rates than the fabric. Please contact DuPont for specific data. These garments are intended for limited use and should be disposed of after single use. If fabric becomes torn, abraded or punctured, or if seams or closures fail, or if attached gloves, visors, etc are damaged, end user should discontinue use of garment to avoid potential exposure.

Frequently Asked Questions

1. How are Tyvek® garments different from other limited-use garments on the market?
2. Are Tyvek® garments flame resistant or flame retardant (FR)?
3. Are Tyvek® garments anti-static or static dissipative?
4. Can these Tyvek® garments be worn in cleanroom applications?
5. How should Tyvek® garments be stored?
6. Is it possible to wash and re-use Tyvek® garments?
7. What determines if the garment is contaminated?
8. What is the shelf life of Tyvek® garments?
9. In what ways can I dispose of Tyvek® garments?
10. Can the materials in Tyvek® garments be recycled?
11. In what ways can I manage or prevent heat stress?
12. Where can I find a MSDS (Material Safety Data Sheet) for Tyvek® garments?
13. Are Tyvek® garments latex free?

1. How are Tyvek® garments different from other limited-use garments on the market?

   Tyvek® garments are unique in several ways. First is the proprietary flash spun Tyvek® fabric which offers inherent breathable barrier that cannot easily be worn or abraded away. This inherent barrier of Tyvek® is not dependent on a thin film or a thin layer of small fibers -- with Tyvek®, every part of the fabric provides barrier. This delivers an effective breathable barrier to particles due to the torturous path created by this unique fabric structure. Additionally, Tyvek® garments are made with a comfort fit design that enables a greater range of movement while stretching and bending, improves mobility, provides a more tailored fit and is easier to put on and take off. Unlike microporous film garments, the breathability of Tyvek® garments can be easily demonstrated.

2. Are Tyvek® garments flame resistant or flame retardant (FR)?

   No, Tyvek® garments are not flame resistant or flame retardant and should not be used around heat, flame, sparks or potentially flammable or explosive environments. Tyvek® garments will ignite and continue to burn and melt.

   In addition, Tyvek® garments should not be worn under or over a garment made of Nomex® or any other flame resistant fabric, if the potential for fire or electric arc exists.

3. Are Tyvek® garments anti-static or static dissipative?

   The fabric used to make Tyvek® garments is treated with a topical antistatic agent to help minimize static build up and reduce nuisance garment cling.

   In situations where static dissipation level is a critical performance property, end-users should evaluate the performance of their entire ensemble as worn including outer garments, inner garments, footwear and other PPE. In order for any garment system to be static dissipative, it must be able to drain a charge buildup through proper grounding devices, such as, but not limited to, workstation grounding clips or static-dissipative floors.

Under certain conditions, such as cold and dry weather, it is possible that garments might build and discharge static electricity. Discharges are not normally dangerous except in situations where the generation of an electrical spark could ignite a flammable atmosphere or startle the wearer. When operating around flammable chemicals, take steps to eliminate potential static discharges. In these situations, suggested steps include, but not limited to, water spray, the use of an overcover, raising humidity level of the work area, use of a commercial, anti-static application coating, grounding straps on equipment and personnel, inherently static-dissipating under- and over-garments, and testing of the worker's static dissipation before entry into the classified area.

However, in the case of explosive or flammable atmospheres, even if steps are taken to manage static formation and dissipate static charge, the risk of severe injury remains if an uncontrolled or accidental ignition occurs. Do not wear Tyvek® chemical protective garments in potentially flammable or explosive atmospheres. Do not knowingly enter an environment in which the concentration of flammable gas is within flammable or explosive limits while wearing a Tyvek® garment. If you determine that you are in a potentially flammable or explosive environment, retreat immediately.

4. Can these Tyvek® garments be worn in cleanroom applications?

   Tyvek® garments have not been designed for controlled environment applications. DuPont offers a full line of garments that have been specially manufactured, processed and packaged for use in controlled environment applications. Please see our complete line of controlled environment products at www.controlledenvironments.dupont.com.

5. How should Tyvek® garments be stored?

   Store Tyvek® garments in a cool, dark, dry location free of dirt and insects. Sunlight, ozone, high temperatures (>120° F ; 49° C), vehicle exhaust fumes, compression under heavy weights and sharp edges or projections are some conditions known to degrade the materials in these garments.

   Store Tyvek® garments in boxes, in bags or on hangers. Never step on protective garments. Never place or store heavy objects on top of protective garments.

6. Is it possible to wash and re-use Tyvek® garments?

   DuPont does not recommend washing Tyvek® garments for re-use. These garments are designed for limited-use. They can be worn until damaged, altered or contaminated.

7. What determines if the garment is contaminated?

   The decision on whether or not a garment has been contaminated is made by local managers responsible for PPE based on an analysis of the incident in which the garment was used. This analysis may include exposure time, chemicals involved, level of exposure, proximity to the actual release, tasks performed, and environmental monitoring in the area in which the garment was worn.

   Garments that are damaged, altered, or show signs of contamination, such as discoloration, odor, stiffening or cracks, should not be used.

8. What is the shelf life of Tyvek® garments?

   Tyvek® garments have a shelf life of at least 5 years based on hyperbaric oxidative degradation studies. High temperature, oxidizing gases, wet, cold, ultraviolet and ionizing radiation will significantly impact the long-term life of garments made of Tyvek®.

9. In what ways can I dispose of Tyvek® garments?

   If not contaminated, Tyvek® garments may be landfilled or incinerated in accordance with local regulations. Uncontaminated chemical protective garments may be incinerated in a facility that is capable of handling mixtures containing plastics. Likewise, an uncontaminated chemical protective garment may be buried in a facility that accepts plastic materials. Tyvek® garments may contain several different materials; they are not suitable for recycling.

   Contaminated garments that cannot be handled safely without protective equipment must be disposed of with other hazardous wastes, either through incineration or landfill per local regulations.

   Before discarding, cut off a sleeve or a leg so the garments cannot be worn again as protective clothing.

10. Can the materials in Tyvek® garments be recycled?

    Tyvek® garments contain several different polymers including: polyethylene fabric, polyester thread and zipper tape, nylon zipper teeth, as well as slip resistant materials and/or synthetic elastic. For most recycling opportunities, these components would need to be separated. Contaminated Tyvek® garments are not suitable for recycling.

11. In what ways can I manage or prevent heat stress?

    Chemical protective clothing can interfere with the natural regulation of body temperature. This can lead to a rise in core body temperature and heat stress. Implementing a conservative work/rest schedule or using a cooling system like the DuPont™ Cool-Guard® vest may be effective in reducing heat stress. (Note: Do not wear cooling vests in potentially flammable or explosive environments.)

    Be aware of the symptoms and treatment of heat stress. If you or your co-workers have symptoms of heat stress such as nausea, dizziness, high heart rates, or excessive heat build-up, leave the work area immediately and remove the ensemble as quickly as possible after decontamination and seek professional care.

    The maximum length of time the chemical protective clothing can be worn depends on variables such as the air supply, ambient conditions, climate inside the ensemble, physical and psychological conditions of the wearer, work rate and work load. The TLV® pocket guide from the American Conference of Governmental Industrial Hygienists (ACGIH, Cincinnati) provides corrected heat stress limits for some garments. Similar information is available on the federal OSHA web site (www.OSHA.gov). The WBGT correction factor for chemical protective garments is at least 10°C or higher for chemical garments made of impervious films (such as Tychem® garments) and covering the entire body (hooded coverall or encapsulating designs). For Tyvek® coveralls, the WBGT correction factor is 2°C with a hood and 1°C without a hood.

12. Where can I find a MSDS (Material Safety Data Sheet) for Tyvek® garments?

    Material Safety Data Sheets (MSDS) are written in accordance with applicable federal regulations, 29 CFR 1910.1200, to communicate health and safety data on usage and handling of hazardous chemicals. Under this regulation, DuPont™ Tyvek®, Tyvek® Dual, Tyvek® FC, ProShield®, ProShield® 3, ProShield® ProShield® Basic, NexGen®, Tempro® and Tychem® materials and garments are defined as articles, not chemicals, and the MSDS and labeling requirments in that standard do not apply.

13. Are Tyvek® garments latex free?

    As of January 1, 2006, all DuPont™ Tyvek®, Tyvek® Dual, Tyvek® FC, ProShield®, ProShield® 3, ProShield® Basic, ProShield® NexGen®, Tempro® garments that are manufactured by DuPont and sold in the United States are manufactured under specifications that exclude components containing natural rubber latex. However, anyone who begins to exhibit allergic response during the use of DuPont products should immediately cease using these products. The incident should also be reported to DuPont at 1-800-441-3637 so that an investigation can be initiated.